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Age and Motivations to Become an Australian Volunteer Firefighter

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Australian communities are very dependent on volunteer-based fire services for protection against wildfires and other disasters. However, volunteer firefighter numbers have declined significantly over the past decade, due mostly to impacts of economic and demographic changes on Australian society. One effect of these is that volunteer fire service memberships are ageing. Little is known with certainty about what motivates individuals to become volunteer firefighters. The current study of 988 volunteer firefighters suggests that those who volunteer do so because of a mix of self-oriented, fire safety-oriented, and community-oriented motivations. It appears that younger volunteers are more likely to be motivated by perceived self-oriented benefits from volunteering compared with older volunteers. However, they are no less motivated, on average, by safety concerns and community contribution motivations than are older volunteers.

Keywords: Wildfire, disaster, volunteer, firefighter, motivation, age

Introduction

Historically, Australia has proved to be particularly vulnerable to four kinds of natural disasters: tropical cyclones, severe storms, floods, and wildfires (Ellis, Kanowski, & Whelan, 2004). Because of its climate, geography, and land use patterns, wildfires (or bushfires) present a particular threat to life, property, and the environment.

Each year ‘disaster level’ bushfires (where the total insurance cost of the event was more than \$A10 million) cost Australia an average of \$A77 million. Between 1967 and 1999 Australia was affected by 23 bushfires where the insurance cost was greater than \$A10 million. The total cost of these bushfires is estimated to have been more than \$A2.5 billion, a figure that does not necessarily

include forestry losses. The January 2003 fires that destroyed over 500 homes and claimed four lives in Canberra caused over \$A300 million damage including more than \$A50 million from the almost total loss of ACT forests. (Australian Institute of Criminology, 2004, p. 1)

During the period 1966-1999, wildfires claimed some 250 lives—the greatest loss of life associated with any single category of natural disaster in Australia (Bureau of Transport Economics, 2001; Ellis et al., 2004).

Australian communities rely heavily on the services of about 220,000 volunteer firefighters in eight state and territory fire agencies for protection against fires. However, over the period 1995-2005 overall volunteer numbers appear to have declined appreciably—at a rate of between 2% and 4% annually (McLennan & Birch, 2005). The causes are complex but it seems that two sets of factors have driven the decline in numbers of fire service volunteers: the first comprises economic factors; the second demographic factors (McLennan & Birch, 2005). The economic factors largely involve changes in the nature of work in Australia flowing from globalization of the world economy: declines in the agricultural and manufacturing sectors; increases in the proportion of the workforce which is self-employed, employed casually, or employed part-time; and reluctance on the part of employers to release employees to attend fires and other emergencies because of concerns to avoid disruption of business activities. To these can probably be added recent adverse impacts of climate change on many Victorian rural communities: lower average rainfalls have reduced agricultural production causing financial hardship for many in rural communities, and resulting in families abandoning farming and leaving the area.

Demographic factors are associated mainly with Australia's ageing population (Social Policy Division, The Treasury, 2004), including a drift of younger people away from small rural communities to capital cities and other large population centres. The impact of this upon volunteer-based fire services is likely to be severe: in 2001 the median age of the Victorian Country Fire Authority's (CFA) 58,000 volunteers was 40 years; in 2006 the corresponding figure was 46 years (McLennan, Birch, King, & O'Loughlin, 2007). Not surprisingly, Australia's volunteer-based fire services are investing considerable resources endeavouring to boost volunteer numbers—and particularly the numbers of younger (<35 years) volunteers—in order to maintain adequate levels of community protection. However, there is little in the way of research, either Australian or overseas, to guide their recruiting strategies, and particularly strategies aimed at recruiting younger volunteers.

Clearly, the nature of firefighting as experienced by volunteers needs to be taken into account in any recruiting endeavours. CFA senior management described the demands

likely to be placed on their volunteers in the following terms as part of a submission to the Parliament of the State of Victoria

volunteering in the (fire and emergency services) sector necessitates particular attributes and commitments, not required generally of volunteers in other organizations, including:

- A high degree of altruism;
- Compliance with the disciplines of emergency ‘command and control’ and requirements of standard operating procedures imposed by the organization;
- Willingness to face danger and to sustain personal trauma and injury (and sometimes death itself);
- Toleration of appalling working conditions including, for example, physical exertion, extreme heat, dehydration and thirst, smoke, uncertainty, etc.
- The requirements of extensive ongoing training and assessment and maintenance of skills and particular competencies, with the occasional requirement to take significant decisions without adequate information;
- The carrying of a range of direct costs associated with service delivery on behalf of the agency (essentially a subsidy or an indirect form of tax to support government safety programs and/or the profits of the insurance industry where property protection is the paramount focus);
- Exposure to risk of litigation over allegations of negligence;
- Preparedness to be on call 24 hours a day, especially during summer months, with unpredictable disruption to family and personal life.

Few other forms of volunteering demand such commitment from the individual volunteer (CFA, 2001, pp 10-11).

Accounts such as the above concerning ‘costs’ associated with being a fire service volunteer raise the question of what would motivate an individual to become a volunteer firefighter. This in turn raises a broader question of why people choose to volunteer to undertake unpaid work of any kind. Benson et al. (1980) noted that volunteers generally: actively sought a means of helping others; often made a commitment to providing help extending over a considerable period of time; received no material reward; and often incurred considerable personal costs in the form of lost time, energy expended, and foregone opportunities. Yet each year in the Western world large numbers of people choose freely to engage in activities aimed at helping others, without material reward (Curtis, Grabb, & Baer, 1992; Wilson, 2000). In 2006, the proportion of the US

population who volunteered in the previous 12 months was 26.7% (Department of Labor, 2007). In Australia, the corresponding figure in 2006 was 34.1% (Australian Bureau of Statistics, 2007).

Several studies have been reported which investigated motivations to volunteer. For example, Gillespie and King (1985) surveyed American Red Cross volunteers and found that the most frequently reported reasons for volunteering were: to help others; to contribute to the community; and to obtain training and skills. Fitch (1987) investigated factors which motivated college students to volunteer for community service and identified three motives: altruism (a desire to increase the welfare of others); egoism (a desire to increase one's own welfare); and social obligation (a desire to repay a debt to society). Clary and Snyder (Clary et al., 1998; Clary, Snyder, & Ridge, 1992) proposed a functional approach to understanding volunteer motivations. In their formulation, volunteering behavior is understood to arise because particular forms of volunteering serve specific functional ends. These researchers proposed a set of six motivational functions served by volunteering: *Values* (altruistic and humanitarian concerns); *Understanding* (new learning experiences); *Social* (social interaction); *Career Benefit*; *Protective* (guilt reduction); and *Enhancement* (positive strivings).

Several social commentators propose that Western 'generations', including Australian, have different value systems which impact on many aspects of social behavior—including volunteering (e.g., Chester, 2002; Salt, 2006a, 2006b). In particular, it has been claimed that members of Generation Y (generally regarded as those born between 1976 and 1991, i.e. aged 16–31 years; Salt 2006a) are relatively more self-oriented than are previous generations. A possible implication is that they may thus be relatively less altruistic and community-oriented, and more concerned with 'what is in it for me?' when making decisions about whether or not to undertake voluntary work—including emergency services volunteering. Given the difficulties which Australasian volunteer-based fire agencies have reported in recruiting volunteers, especially volunteers aged <35 years, claims about the alleged self-interest of Generation Y have been accorded a degree of plausibility.

There is evidence from the general literature on volunteering that motivations for volunteering may differ with age. In their survey of American Red Cross volunteers noted previously, Gillespie and King (1985) found that older respondents (38+ years) were more likely to report 'To help others' as their main reason for volunteering, while younger volunteers were more likely to report 'To obtain training and skills'. Omoto, Snyder, and Martino (2000) surveyed adults interested in becoming hospice care volunteers. They found that younger potential volunteers (19-39 years) reported greater 'relationship' motivation (e.g., To meet new people and make new friends) compared with an older group (55-76 years) who, in turn, reported greater 'service' motivation (e.g., Because of my sense of obligation to my community).

Okun and Schultz (2003) undertook a detailed study of age and motivation to volunteer. They first conducted a meta-analysis of findings in 13 reports concerning age differences on one or more of the six motives to volunteer proposed by Clary et al. (1992) described earlier plus an additional motive of Making friends. Okun and Schultz concluded that age was significantly negatively related to Career motives to volunteer, and that the relationship between age and Social motives to volunteer approached significance. No significant age-related effects for the remaining five motives to volunteer (Enhancement, Protective, Understanding, Values, and Making friends) were found. Okun and Schultz then surveyed 523 volunteers with Habitat For Humanity International, whose members are involved with building and rehabilitating houses for low income families. Age was found to be: (a) negatively related to Career and to Understanding motives; (b) positively related to Making friends and to Social motives; and, (c) not related to Enhancement, Protective, nor Values motivations to volunteer. This pattern of findings suggests that while younger volunteers are more likely to report personal benefits in the form of career enhancement as a reason for volunteering compared with older volunteers, older volunteers are more likely to report personal benefits in the form of strengthened social networks. There was no evidence that older volunteers were more strongly motivated by altruistic community service reasons for volunteering, although these were assessed somewhat indirectly via the Values component of the Volunteer Functions Inventory (Clary et al. 1992).

While the research evidence concerning age and motivations for volunteering is not entirely consistent, there seems to be a trend for younger volunteers to report relatively greater importance of personal benefits (such as training, and career enhancement) derived from volunteering compared with older volunteers, who in turn report relatively greater importance of more altruistic reasons for volunteering (helping others)—although the findings of Okun and Schultz (2003) suggest that a ‘helping others’ motive to volunteer may be intertwined with benefits derived from social contacts. Notwithstanding, actual evidence that younger potential fire service volunteers are more self-oriented and/or less community-oriented compared with older generations is lacking.

Few studies have been published which examined the motivations and experiences of volunteer firefighters generally. One by Lozier (1976) concluded that against the cost of being a volunteer (experienced as lost leisure time, physical exertion, risk, and financial costs) the benefits were perceived to be: gaining of useful knowledge; community participation and social interactions; and regard and respect in the community. Thompson and Bono (1993) surveyed members of 15 volunteer fire Departments in New York State. They reported the relative importance of various motivations for being a volunteer to be as follows: first, helping one’s community; second, making a contribution to an important activity; third, friendships with fellow volunteers; and finally, a sense of being in control.

Three studies which investigated Australian fire service volunteers’ reasons for volunteering have been reported previously: Aitken (2000), Clancy (2005), and Palmer

(2000). All three indicated the importance of a mixture of community-oriented and self-oriented motives, with community-oriented motives dominating. However, all three suffer from methodological shortcomings:

1. Most respondents had been fire service volunteers for several years (median approximately 10 years), so that self-reported motivations for *joining* were confounded with motivations for *remaining*.
2. The instructions prevented respondents from indicating the possible operation of multiple motives and/or differences in the relative importance of motives.
3. None examined possible age-related differences in motivations for volunteering.

Aim of the Present Study

CFA is a volunteer-based fire agency, responsible for suppressing all fires on private property in the State of Victoria, outside central metropolitan Melbourne. The present study was part of CFA's New Volunteers Project which involves a longitudinal study of all new volunteers recruited between April 2005 and March 2006. The research was carried out jointly by staff in CFA's Member Services unit and the Bushfire Cooperative Research Centre (CRC) Volunteerism Project team. The aim of this component of the New Volunteers Project was to investigate possible differences in self-reported motivations for volunteering of new members aged 18-34, 35-44, and 45+ years. These particular age groups were chosen because an earlier community survey of households in the 'Grain Belt' region in central-western rural New South Wales indicated that individuals aged 35-44 were much less interested in volunteering with the New South Wales Rural Fire Service compared with individuals aged 18-34 or 45+ years of age (Birch & McLennan, 2007)—apparently because of work- and family-related time demands. It was hypothesised that younger volunteers (18-34 years) would report being more motivated by expected personal benefits from being a volunteer firefighter (such as learning new skills) compared with older volunteers.

Method

Participants

Participants were CFA volunteer firefighters who joined for the first time during the period April 2005 to March 2006. The CFA Member Services unit mailed a questionnaire to all new volunteers who joined during the 12 month period, 6 months after they joined. There were twelve monthly mailouts, totalling 3,088 questionnaires. Returns came to the Bushfire CRC Volunteerism Project team at La Trobe University via reply-paid envelopes. There were returns from 988 new volunteers (662 men and 326 women). This represents a return rate of 32%, which compares quite favourably with recent surveys of memberships of volunteer-based fire agencies in other Australian states, where return

rates have ranged from 14% to 24%. The mean age of participants was 39.2 years ($SD = 14.36$ years).

Survey Questionnaire

The survey questionnaire was constructed on the basis of: (a) interviews with volunteers from a range of locations (rural and urban), and interviews with CFA managers of volunteers; (b) discussions with CFA human resources staff concerning their information needs; (c) input from the peak volunteer firefighter association, Volunteer Fire Brigades Victoria; and (d) questionnaires used in three previous surveys of Australian volunteer firefighters. The survey sought demographic information, and information on a range of topics such as prompts for joining; motivations for joining; and recruitment, induction, and training experiences. The questionnaire included 10 statements, each of which described a possible motive for volunteering (Table 1). These statements were drawn from the three previous studies of Australian volunteer firefighter motives noted in the introduction. Respondents were instructed: “Why did you decide to join CFA? For each item, tick to show how important it was in motivating you to join CFA”. The response options were: “Major reason for joining”; “Minor reason for joining”; “Not a reason for joining” (coded as 3, 2 and 1, respectively).

Results

Ratings of the importance of the 10 items were intercorrelated, and an exploratory Principal Axis Factoring (PAF) analysis of the inter-item correlations was carried out, following the recommendations of Kahn (2006). Three factors had eigenvalues greater than 1.0. Table 1 shows item loadings on each of the three factors following Varimax rotation (other methods of rotation were also carried out, including Oblimin and Promax, but since the outcomes of these did not differ appreciably from that of the simpler Varimax procedure, only the latter was reported). Members of a panel of three researchers (including the authors) inspected both the bivariate correlations and the factor loadings independently and then interpreted the factors by consensus as: I Self-oriented motives; II Fire Safety Awareness-oriented motives; III Community-oriented motives. A question was raised concerning (a) the apparent similarity of the content of the items “I have friends or family in CFA” and “I wanted to join the camaraderie and mateship of CFA”, but (b) their loading on different factors (II and I, respectively). It was noted that the magnitude of the bivariate correlation between ratings on the items was low ($r = .13$), and that 27% of the new volunteers reported that they had a friend or family member in CFA. It was concluded that endorsing “I have friends or family in CFA” as a reason for joining was much more likely to be associated with awareness of, and safety concerns about, wildfires than with meeting social needs through volunteering, and this accounted for the item loading on Factor II rather than on Factor I.

Participants' ratings of the items making up the three components (i.e., loadings > .4) were summed to generate three motivation scores for each participant.

1. Self-oriented motivations (4 items, range 4 – 12, $\alpha = .77$).
2. Fire Safety Awareness-oriented motivations (4 items, range 4 – 12, $\alpha = .68$).
3. Community-oriented motivations (2 items, range 2 – 6, $\alpha = .63$).

The means of these motivation scale scores for participants aged 18-34, 35-44, and 45+ years were then compared.

**Table 1: Principal Axis Factoring Analysis of Reasons for Volunteering
Items: Varimax Rotated Component Loadings¹ (decimal points omitted).**

	Component		
	I	II	III
I felt that it would improve my career opportunities	70		
I wanted the opportunity to learn new skills	69		
I wanted the challenge of firefighting	63		
I wanted to join the camaraderie and mateship of CFA	61		
I wanted to better protect my property		60	
I feel more secure knowing someone is doing the task		57	
I have friends or family in the CFA		48	
I knew the local brigade needed more volunteers		41	
I wanted to help protect the community			87
I wanted to give something back to the community			47
<i>Eigenvalues</i>	3.3	1.5	1.1
<i>Cumulative % variance explained</i>	33	47	59

¹ Loadings < .30 omitted

A preliminary analysis showed that there were no differences between men and women on mean scores of any of the three motivations scales, nor were there any significant gender X age interactions. A MANOVA was then conducted in which the Independent Variable was age group (18-34; 35-44; 45+ years), and the Dependent Variables were scores on Self-oriented motivations, Safety-oriented motivations; and Community-oriented motivations. There was a significant overall difference among means: $F(6,1860) = 19.40, p < .001$. Univariate F tests showed that the source of the difference was mean score on the Self-oriented motivations scale: $F(52,931) = 28.47, p < .001$ (Table 2). There were no significant differences among the age groups on mean scores on Safety-oriented motives, nor on Community-oriented motives.

Table 2: Means and Standard Deviations of Scale Scores, by Age Groups (N = 934¹).

Age group	N	Motivations Scale					
		Self-oriented		Safety-oriented		Community-oriented	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
18-34	411	8.7	2.34	8.4	2.07	5.2	1.02
35-44	227	7.6	2.45	8.1	2.16	5.2	1.04
45+	296	6.9	2.15	8.2	2.13	5.2	0.99

¹Missing age values excluded 54 participants from the analysis

Scheffe tests showed that (a) the mean score of the 18-34 age group was significantly higher ($p < .05$) than the mean scores of the other two age groups on Self-oriented motives; and (b) the mean scores of Self-oriented motivations of the 35-44 and 45+ age groups did not differ significantly (Table 2). The magnitude of the difference (effect size) between mean Self-oriented motivations for the 18-34 age group and the 35-44 age group, expressed as *Cohen's d*, was 0.48; the value for the corresponding difference between the 18-34 age group and the 45+ age group was 0.80.

Discussion

It seems from this study overall that individuals become CFA volunteer firefighters because they are motivated by a mix of community contribution desires, fire safety concerns, and enlightened self-interest. In relation to age-related motivations, the picture which emerges from the data is that while Self-oriented motivations (career advancement, skills development, new challenges, and friendship opportunities) were indeed more important on average for the 18-34 age group (as proponents of a Generation Y phenomenon claim), volunteers in this age group were just as motivated by perceived safety concerns and community needs, on average, as were the two older age groups.

While it may be that the observed differences in relative importance of Self-oriented motivations reflect different generational values, as argued by Salt (2006a,b) and others, it may also be that they result simply from life-cycle factors: people aged 18-34 are more likely to be in the early stages of career and friendship network development compared with older volunteers. Thus, it is not surprising that Self-oriented motivations of 18-34 year old volunteers were reported to be relatively more important compared with those of older volunteers.

Regardless of the extent to which the findings reflect generational values or life-cycle factors, they suggest that potential volunteer firefighters aged 18-34 are somewhat more likely (compared with older individuals) to be attracted by the personal benefits resulting from fire service volunteering: career enhancement, skills development, the challenge, and opportunities for friendship and camaraderie. This implies that volunteer-based fire services wishing to attract younger volunteers (<35 years) should employ a recruiting

strategy which (a) emphasizes the personal benefits likely to accrue to the volunteer, but (b) not at the expense of contributing to community safety and community development.

While all the participants in the study were volunteer firefighters with one agency, Victoria's CFA, a subsequent survey of new volunteer firefighters who joined Western Australia's Fire and Emergency Services Authority resulted in very similar findings concerning age and motivations to become a volunteer firefighter (McLennan & Birch, 2007).

Findings from the present study were consistent with only one aspect of other findings reported in the age and motivations to volunteer literature: potential benefits associated with career-enhancement were relatively more important for younger volunteers (18-34 years) than for older volunteers (Okun and Schultz, 2003). However, there was no evidence that older volunteers were more strongly motivated to serve their community (cf Omoto et al., 2000). Perhaps in the general literature on age and motivation to volunteer it has been too readily assumed that volunteering can be treated generically—that is, insufficient attention has been paid to differences among various contexts of volunteering. Issues involved in volunteering as (say) a community aged-care worker may have very little relevance to emergency services volunteering. The importance of paying attention to the nature of tasks specific to the particular volunteering endeavour is supported by a recent study of fire service volunteers reported by Luong and Tuckey (2006). They surveyed 466 South Australian Country Fire Service volunteer firefighters in order to investigate factors associated with volunteer retention. Participants were asked to complete the Volunteer Functions Inventory (VFI: Clary et al., 1998) as well as a specially constructed additional motivation scale: Firefighting Fun and Enjoyment. While the highest average importance rating was given to the VFI Values motivation scale, the second highest average rating was on the Firefighting Fun and Enjoyment motivation scale. Given the importance of volunteer based fire services for community protection, more research which investigates motivational issues specific to the volunteer firefighter role seems highly desirable.

As outlined in the Introduction, the impetus for the current study was to inform Australian volunteer-based fire agencies about the motives which lead people to become volunteer firefighters. The purpose was to enable these agencies to enhance the effectiveness of their approaches to recruiting volunteer firefighters—especially younger firefighters—so as to maintain adequate levels of community protection against wildfires and other natural disasters. Since the results from the study were first reported, most agencies have incorporated the findings into their advertising campaigns to recruit new volunteers. It remains to be seen if the goal of boosting volunteer firefighter recruitment is met. Initial reports from agencies have been positive (Birch, McLennan, Cowlshaw, & Beatson, 2008).

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